

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



Reserve  
1.96  
R31F50

# Water Supply Outlook For Oregon



SOIL CONSERVATION SERVICE  
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

OREGON DEPARTMENT OF WATER RESOURCES

AS OF  
APR. 1, 1980



## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*COVER PHOTO: THE SNOTEL PROJECT CENTRAL COMPUTER FACILITIES IN PORTLAND, OREGON. THE TERMINAL, PRINTER, COMPUTER AND TAPE DRIVES HAVE NOT COMPLETELY REPLACED THE SNOW SAMPLING TUBES SEEN IN THE FOREGROUND.*

## PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



# **WATER SUPPLY OUTLOOK FOR OREGON**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued*

APRIL 1, 1980

*Issued by*

NORMAN A. BERG

ADMINISTRATOR  
SOIL CONSERVATION SERVICE  
WASHINGTON, D C

*Released by*

GUY W. NUTT

STATE CONSERVATIONIST  
SOIL CONSERVATION SERVICE  
PORTLAND OREGON

*In Cooperation with*

OREGON  
DEPARTMENT  
OF  
WATER RESOURCES

*Report prepared by*

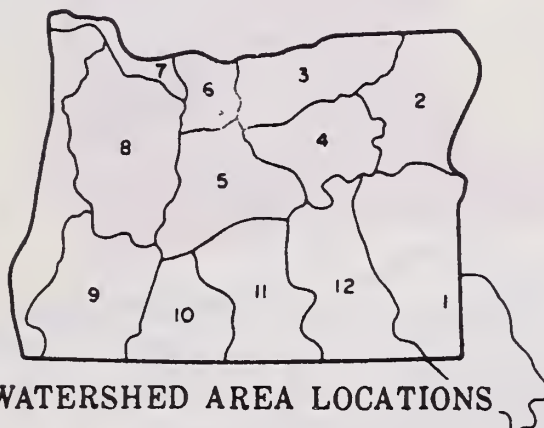
TOMMY A. GEORGE, Snow Survey Supervisor  
RONALD A. JONES, Asst. Snow Survey Supervisor  
WILLIAM E. WOOLCOCK, Hydrologic Technician

SOIL CONSERVATION SERVICE  
1220 S.W. THIRD AVENUE  
PORTLAND, OREGON 97204

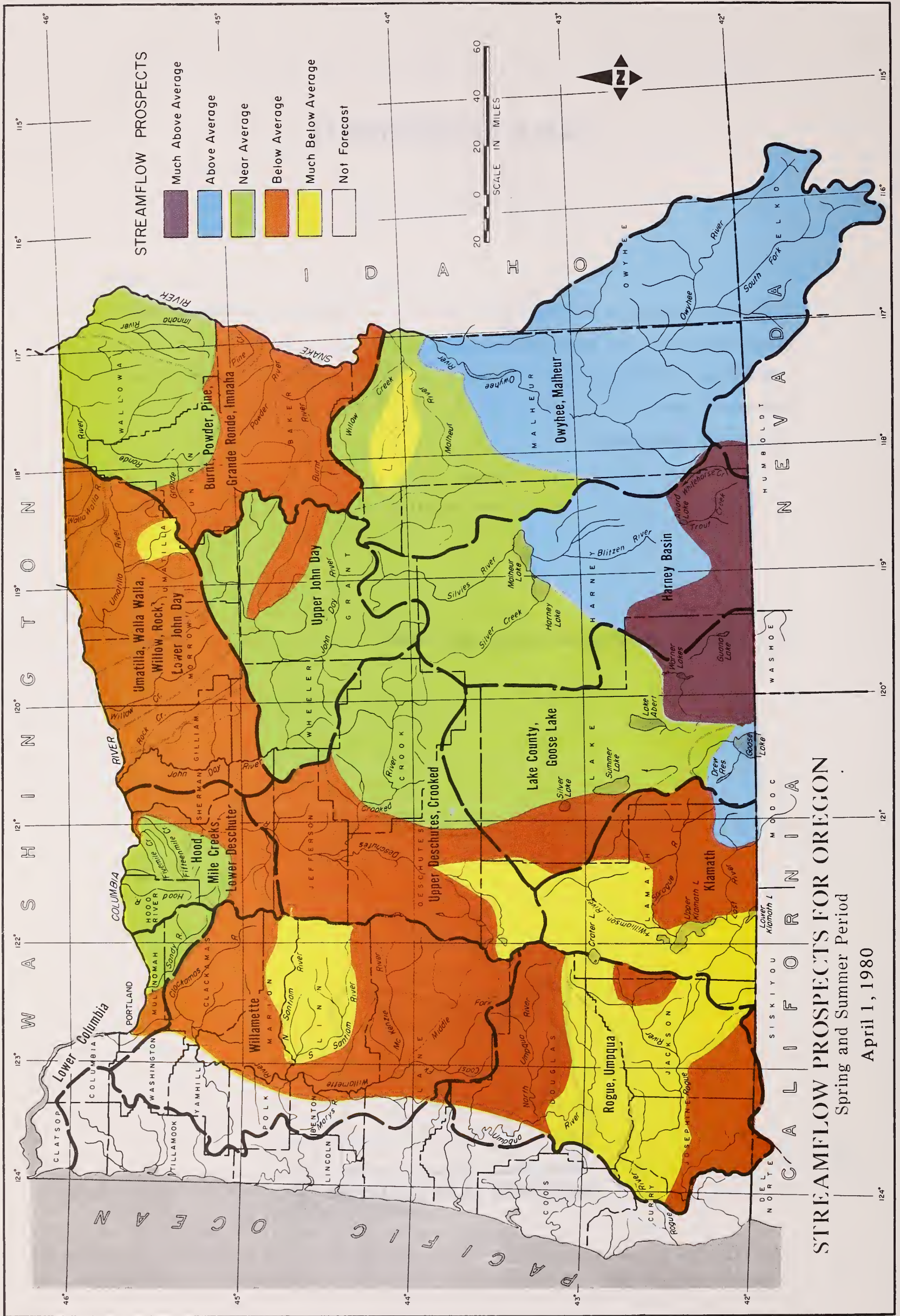


# TABLE OF CONTENTS

	PAGE
STREAMFLOW PROSPECTS FOR OREGON.....(MAP).....	FACING PAGE 1
WATER SUPPLY OUTLOOK FOR OREGON.....	1
STREAMFLOW FORECASTS.....	3, 4 AND 5
RESERVOIR STORAGE.....	6
BASIC DATA SUPPLEMENTS	
I     - SNOW	
II    - PRECIPITATION	
PREVIOUSLY UNPUBLISHED AND ERRATA SNOW DATA.....	APPENDIX









# WATER SUPPLY OUTLOOK AND SUMMARY

## FOR OREGON

APRIL 1, 1980

\*\*\*\*\*  
\*The water supply outlook is adequate for all Oregon water users except in \*  
\*the Deschutes basin and in Douglas, Jackson and Josephine counties. March \*  
\*storms dumped generous amounts of snow on most of Oregon's mountain watersheds.\*  
\*The snow cover, however, is still very poor in the Cascades south of Mt. Hood, \*  
\*all the way to the Oregon-California state line. Precipitation during March \*  
\*was close to normal except in the central and south central part of the state \*  
\*where it was much below normal.\*  
\*\*\*\*\*

### SNOW COVER

The snowpack is much above average in the south half of Lake, Harney and Malheur counties. North of this area in eastern Oregon the snowpack is close to normal. An exception is the Blue Mountains between Pendleton and LaGrande where the April 1 snow cover is 60 to 70% of average. In the Cascade range a near average snowpack exists near Mt. Hood. South of Mt. Hood the snowpack is extremely poor ranging from 30% of average on the Umpqua to 59% on the Clackamas drainage.

### PRECIPITATION

March brought near to above average precipitation to all of Oregon except for Jefferson, Crook, Deschutes and Klamath counties. Here it was 60 to 70% of average.

### RESERVOIR STORAGE

Reservoir storage is generally good as twenty-six major irrigation reservoirs are currently storing 2,453,000 acre feet of water. This is 97% of normal for this time of year. Reservoirs which will not fill and will be short of water include Clear Lake in Wasco County and Crescent Lake on the Upper Deschutes.

### STREAMFLOW

Streamflow during March was generally below average as temperatures were cool and prevented any early melting of the snowpack.

## STREAMFLOW (CONT.)

Forecasts of representative Oregon streams are as follows:

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST</u> <u>% of 1963-77 AVG.</u>
Owyhee net Inflow	April-Sept.	128
Malheur nr. Drewsey	April-Sept.	100
Deschutes @ Benham Falls	April-Sept.	75
Grande Ronde @ La Grande	April-Sept.	78
Willamette Mid. Fk. nr. Oakridge	April-Sept.	75
Upper Klamath Lake net Inflow	April-Sept.	70
Rogue @ Raygold	April-Sept.	70
Silvies nr. Burns	April-Sept.	100

These forecasts assume that normal weather conditions will prevail between now and the end of the forecast period.

The forecasts in this bulletin are a result of coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

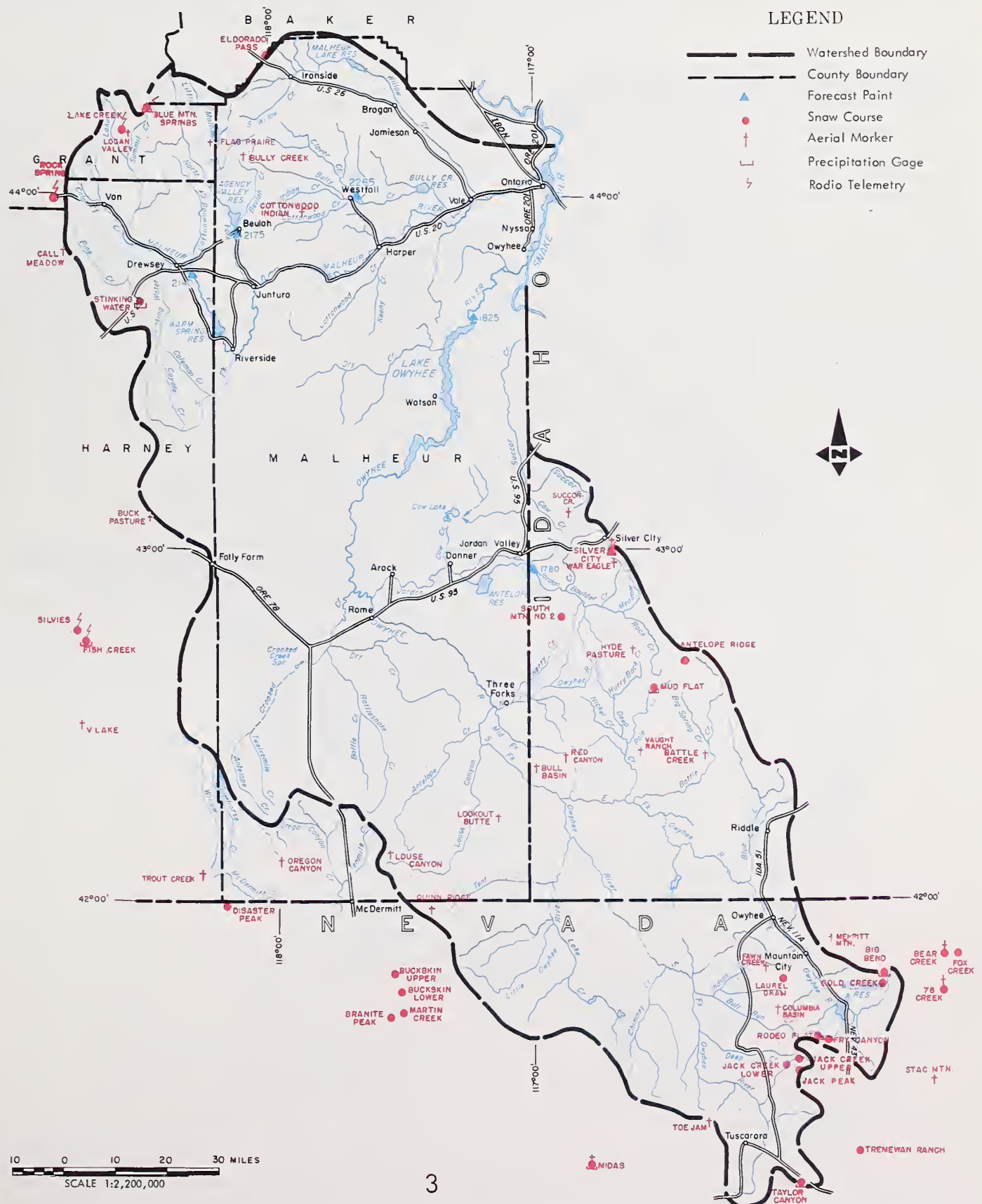
This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

# WATER SUPPLY OUTLOOK

## OWYHEE, MALHEUR WATERSHEDS

### OREGON

The spring and summer streamflow forecast for the Malheur and Owyhee Rivers is above average. The snow cover increased during March and now ranges from 93% of average on the Malheur watershed to 148% of average on the Owyhee. Reservoir storage is currently above average for this time of year. The streams will recede about 5-7 days later than normal this summer. Precipitation for March was 117% of average and it continues above average for the current water year.





## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year      Average <sup>c</sup>
Bully Creek at Warm Springs	8.0	63	March-May	12.6 <sup>b</sup>
Malheur near Drewsey	69	97	April-July	71
	73	100	April-Sept.	73
Malheur, North Fork at Beulah	63	103	April-July	61
	68	101	April-Sept.	67
Owyhee Reservoir net Inflow	467	128	April-July	365
	500	128	April-Sept.	392
Owyhee at Rome	462	128	April-July	361 <sup>b</sup>

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	2000	May 16	May 14
	1000	May 26	May 28
	500	June 15	June 11

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Beulah Reservoir	60.0	50.0	37.2	43.9
Bully Creek	30.0	26.4	27.1	22.3
Owyhee	715.0	699.0	650.0	581.1
Warm Springs	191.0	158.3	123.7	126.1

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Jordan Creek	3	123	133
Malheur River	5	87	93
Owyhee River	6	108	148
Bully Creek	2	2	6

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

## BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

### OREGON

The water supply outlook for Wallowa and Baker counties is good with the forecast near average. Union County water supply is forecast to be below average. The snow cover for the Upper Grande Ronde is 77% of average. The rest of the area ranges from 97% to 100% of average. Reservoir storage for the area is near normal except for Wallowa Lake which is currently 81%. Irrigators with access to stored water should have sufficient supplies. Irrigators in Union County who pump directly from streams may experience shortages. Catherine Creek is expected to recede about 8 days early this year. Precipitation for last month was slightly above average but it was only 88% of average for the 1980 water year.





# STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Anthony Creek blw. North Fork nr. North Powder	13.6	88	April-July		15.5
Bear near Wallowa	60	92	April-Sept.		65
Big Creek blw. Burn Creek nr. Medical Spring	9.1	90	April-July		10.1
Burnt near Hereford	31	89	April-July		35
	32	89	April-Sept.		36
Catherine near Union	57	89	April-Sept.		64
Deer Creek abv. Phillips Res. nr. Sumpter	14.1	94	April-July		15.0 <sup>b</sup>
Eagle Creek abv. Skull Creek	148	88	April-July		169
	163	88	April-Sept.		184
Grande Ronde at La Grande	120	76	April-July		157
	125	78	April-Sept.		161
Hurricane near Joseph	44	96	April-Sept.		46
Imnaha at Imnaha	296	97	April-Sept.		305
Lostine near Lostine	114	93	April-Sept.		123
Pine Creek nr. Oxbow	165	85	April-July		194 <sup>b</sup>
Powder near Sumpter	51	90	April-July		57
	52	90	April-Sept.		58
Wallowa, East Fork near Joseph	8.6	94	April-July		9.1
	10.5	92	April-Sept.		11.4
Wallowa at Joseph	68	98	May-July		69
Wolf Creek Res. net Inflow	10.2	84	April-June		12.1

## RESERVOIR STORAGE (Thousand Ac. Ft.)

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Phillips Lake	73.5	51.2	53.8	52.3
Thief Valley	17.4	17.4	17.4	17.4
Unity	25.2	23.8	21.5	19.6
Wallowa Lake	37.5	19.0	35.6	23.5
Wolf Creek	10.4	4.3	7.0	--

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Burnt River	4	85	99
Grande Ronde River above La Grande	4	94	77
Powder River	5	92	96
Wallowa, Imnaha, Catherine Creek	6	106	100

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Catherine Creek nr. Union	41	August 1	Avg. value 49
	100	July 1	July 9
	50	July 20	July 28

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

## OREGON

### GENERAL OUTLOOK

The streamflow for the area will generally be below average. McKay Creek near Pilot Rock will be much below average. Irrigators pumping water from streams will experience shortages this year. The snowpack has improved during March for McKay Creek and the Umatilla River watersheds (63% and 73% respectively), but it is still well below average. The Umatilla River and South Fork Walla Walla River are forecast to recede nearly two weeks earlier than normal this year. The Cold Springs and McKay Reservoirs are filling ahead of normal so adequate water supplies will be available for irrigators being supplied from reservoirs. The John Day River at Service Creek is forecast to be flowing at 78% of average levels on August 1. Precipitation for March was 93% of normal, but for the current water year October-March it is 106% of normal.

10 0 10 20 30 MILES  
SCALE 1:1,500,000



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year      Average <sup>c</sup>
Butter Creek nr. Pine City	6.5	87	April-July	7.5
Couse Creek nr. Milton Freewater	2.9	72	April-July	4.0 <sup>b</sup>
McKay near Pilot Rock	15.0	68	April-Sept.	22
Pine Creek near Weston	2.1	75	April-July	2.8 <sup>b</sup>
Rhea Creek nr. Heppner	3.4	80	April-July	4.2
Rock Creek abv. Cayuse Canyon nr. Condon	7.2	80	April-July	9.0 <sup>b</sup>
Umatilla near Gibbon	54	75	April-July	72
	58	75	April-Sept.	78
Umatilla at Pendleton	109	75	April-July	145
	112	75	April-Sept.	150
Walla Walla, South Fork near Milton	47	85	April-July	55
	61	88	April-Sept.	69
Willow Creek at Heppner	4.1	80	April-July	5.1

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 2	May 17
So.Fk. Walla Walla nr. Milton	200	May 28	June 9
	103	Aug.-Sept.	Avg.value 105 cfs

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Cold Springs	50.0	47.6	37.5	47.3
McKay	73.8	61.4	67.9	47.5

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
McKay Creek	3	68	63
Umatilla River	3	76	73
Walla Walla River	2	71	69

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## UPPER JOHN DAY WATERSHEDS

### OREGON

The snow cover on the John Day River is now at 96% of average. Both Mountain Creek and Strawberry Creek are forecast to have near normal (100% and 95% of average) streamflow this summer. Camas Creek and the North Fork John Day River are forecast to have below average streamflows while the Middle Fork John Day is forecast to be much below average (68%). On August 1 the John Day River at Service Creek is forecast to have a flow of 165 cfs as compared to an average flow of 212 cfs. Precipitation for March and also for the 1980 water year to date has been near normal.





## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year      Average <sup>c</sup>
Camas Creek near Ukiah	29	88	April-July	33
	30	88	April-Sept.	34
John Day, Middle Fork at Ritter	85	78	April-July	109
	88	78	April-Sept.	113
John Day, North Fork at Monument	473	90	April-July	526
	487	90	April-Sept.	541
Mountain Creek nr. Mitchell	3.1	100	April-July	3.1 <sup>b</sup>
Strawberry near Prairie City	6.8	96	April-July	7.1
	7.3	95	April-Sept.	7.7

## FORECAST DATE of LOW FLOW VALUES

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value	RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
						Last Year	Average <sup>c</sup>
John Day at Service Creek	165	Aug. 1	Avg.value 212	John Day, North Fork John Day abv. Dayville	7 5	79 79	96 96

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK

## UPPER DESCHUTES, CROOKED WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The snowpack for the area is below average except for the Little Deschutes which is much below average (50%). The streamflow for this area will be below average this summer except for the Crooked River which will be near normal (90% of average). Except for Ochoco and Prineville, which are above average, reservoir storage in the area is much below average. For irrigators getting water from the Ochoco and Prineville reservoirs there should be adequate water available. Precipitation for March was much below average (66% of average) but for the water year to date the precipitation has been 108% of normal. Streamflow on the Crooked River is forecast to recede 3 days early. Streamflow on the Deschutes and Little Deschutes Rivers is forecast to be below to much below average.



# STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Beaver Creek near Paulina	14.4	90	April-July		16.0
	14.5	90	April-Sept.		16.1
Crane Prairie Reservoir total Inflow	54	70	April-July		77
	84	70	April-Sept.		120
Crescent at Crescent Lake	10.0	56	April-July		17.8
	12.6	57	April-Sept.		22
Crooked River nr. Prineville	80	90	April-July		89
	81	90	April-Sept.		90
Crooked R.,No.Fk. blw. Lookout Cr. nr. Paulina	7.5	76	April-July		9.9 <sup>b</sup>
Deschutes at Bend	146	--	Aug.-Sept.		--
Deschutes at Benham Falls	362	75	April-July		483
	546	75	April-Sept.		728
Deschutes below Snow Creek	44	70	April-Sept.		63
Deschutes, Little near La Pine	43	58	April-July		74
	51	61	April-Sept.		84
Ochoco Reservoir net Inflow	16.0	100	April-Sept.		16.0
Squaw near Sisters	39	80	April-Sept.		49
Tumalo near Bend	36	80	April-Sept.		45

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	362	Peak	
	224	Oct. 31	
	Peak	May 26	
Crooked R. near Post	100	May 29	June 1
Deschutes at Bend	1500	*	July 1
*Will not reach 1500.			
Little Deschutes nr. La Pine	400	*	June 7
*Will not reach 400.			
	200	May 29	July 8
Squaw Cr. nr. Sisters	100	July 30	Aug. 16

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Crane Prairie	55.3	30.6	43.1	47.2
Crescent Lake	86.9	29.1	44.7	65.1
Ochoco	47.5	43.3	35.4	33.8
Prineville	153.0	147.2	148.7	103.8
Wickiup	200.0	178.5	191.8	190.4

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Crooked, Ochoco	4	89	87
Deschutes abv. Wickiup	3	123	78
Little Deschutes	4	94	50
Tumalo & Squaw Crs.	3	119	77
Shitike Creek	4	119	82

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The snowpack in the area is good, with values ranging from 99 to 103%. Streamflow is forecast to be near normal. Clear Lake has less water than average but more than it had at this time last year. It should not fill. The White River will recede about 9 days early this summer. Precipitation for March and the 1980 water year, October through March, is less than average (94% for both).

10 0 10 20 MILES  
SCALE 1:1,000,000



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year      Average <sup>c</sup>
Hood River near Hood River	247	100	April-July	247
	293	100	April-Sept.	293
Hood, West Fork near Dee	127	100	April-July	127
	149	100	April-Sept.	149
White below Tygh Valley	103	90	April-July	114
	116	90	April-Sept.	129

## FORECAST DATE of LOW FLOW VALUES

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*34	July 15-31	**39
*Average cfs forecast to flow for this two-week period.			
** Average cfs for period of record.			
White blw. Tygh Valley	200	June 24	July 3
	131	Aug. 1	Avg. value 145

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Clear Lake (Wasco)	11.9	1.0	0.5	5.1

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Hood River	5	140	99
Mile Creeks	1	145	103
White River	3	127	99

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# WATER SUPPLY OUTLOOK LOWER COLUMBIA WATERSHEDS OREGON

## GENERAL OUTLOOK

The Columbia River at The Dalles is forecast to be flowing at 82% of average this summer. The water supply forecast for the Columbia River has not changed much in the past few months. The streamflow for the Sandy River has improved during March and it is now forecast to flow at 100% of normal. This is due to the snowpack improving to 104% of average on the Sandy River watershed.





## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Sandy River	2	129	104

## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Average C
Columbia at The Dalles	72,900	82	April-July	88,520
	85,000	82	April-Sept.	103,500
Sandy River near Marmot	329	100	April-July	329
	384	100	April-Sept.	384

## HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW <sup>d</sup> (1,000 A F.)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

## LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

[illegible]



## STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Clackamas at Estacada	480	72	April-July		667
	563	72	April-Sept.		782
Clackamas above Three Lynx	364	72	April-July		506
	434	72	April-Sept.		603
McKenzie at McKenzie Bridge	352	78	April-July		452
	478	80	April-Sept.		598
McKenzie near Vida	717	70	April-July		1,024
	881	70	April-Sept.		1,259
McKenzie, So. Fork near Rainbow	155	75	April-July		207
	176	75	April-Sept.		234
Oak Grove Fork above Power Intake	103	78	April-July		132
	131	78	April-Sept.		168
Row near Dorena	69	70	April-July		98
	73	70	April-Sept.		104
Santiam, North at Mehama	496	66	April-July		752
	568	66	April-Sept.		860
Santiam, South at Waterloo	383	70	April-July		547
	413	70	April-Sept.		590
Willamette, Coast Fork nr. London	18.9	70	April-July		27
Willamette, Mid.Fk.Blw.N.Fk. nr. Oakridge	455	75	April-July		607
	590	75	April-Sept.		786
Willamette, No.Fk. of Mid.Fk. near Oakridge	134	71	April-July		188
	152	73	April-Sept.		209
Willamette at Salem	3,033	72	April-July		4,213
	3,335	71	April-Sept.		4,697

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Clackamas River	1	101	59
McKenzie River	3	100	50
Row River	2	71	31
Santiam River	4	69	39
Willamette, Mid.Fk.	5	92	52

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Blue River	85.6*	54.3	54.5	50.0
Cottage Grove	30.0*	16.4	17.4	16.5
Cougar	155.2*	82.9	91.1	74.4
Detroit	299.9*	180.2	200.7	158.0
Dorena	70.5*	39.1	40.3	38.8
Fall Creek	115.0*	76.8	79.5	70.5
Fern Ridge	94.2*	77.7	68.2	72.4
Foster	30.0*	7.8	8.5	11.2
Green Peter	270.0*	170.3	182.6	161.3
Hills Creek	200.0*	120.8	136.6	111.8
Lookout Point	337.2*	115.0	225.5	157.9
Timothy Lake	61.7	34.5	30.0	53.5
Henry Hagg Lake	53.0	5.0	--	--
* Multiple purpose reservoir--space reserved primarily for flood runoff.				

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



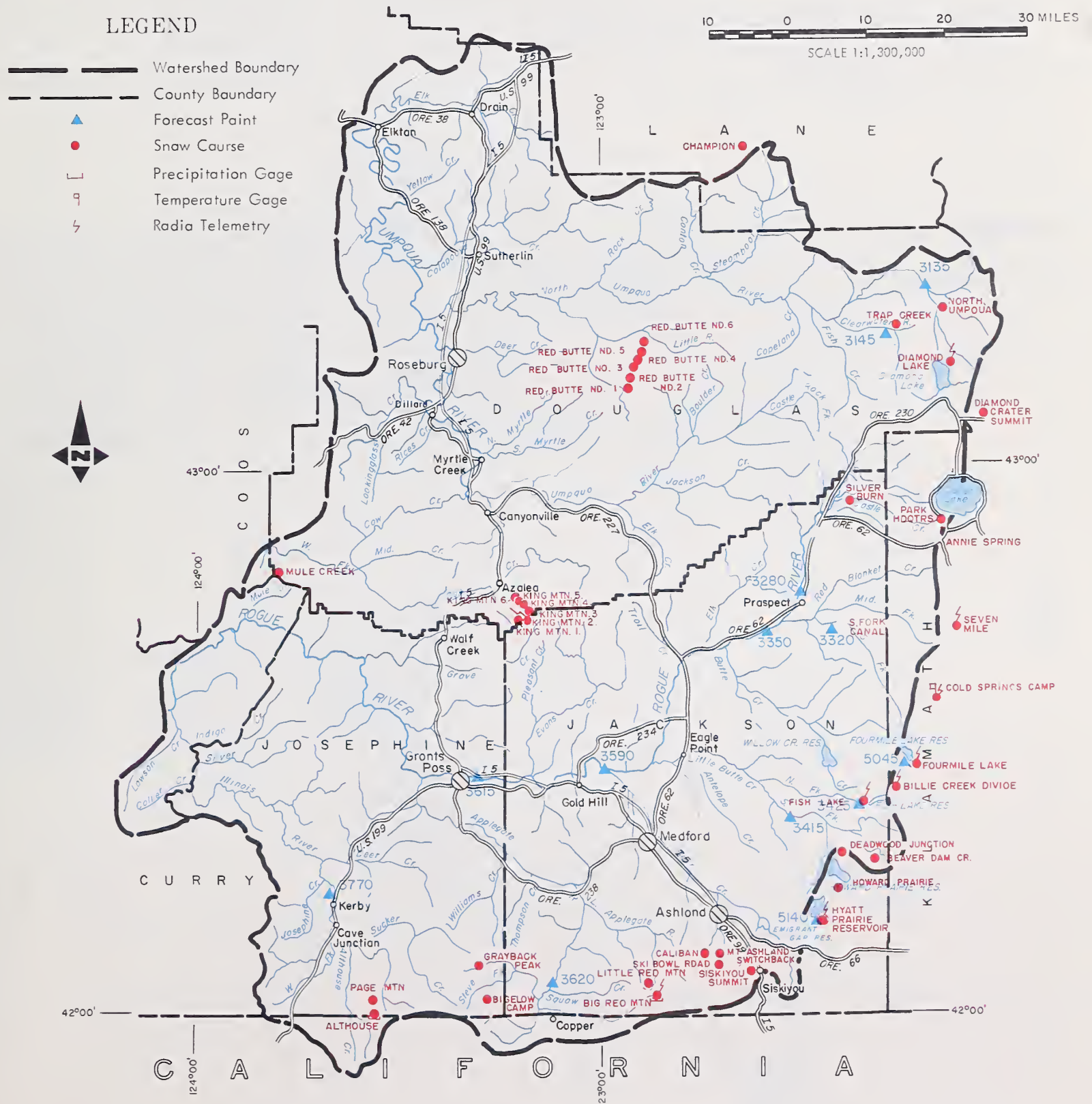
# WATER SUPPLY OUTLOOK

## ROGUE, UMPQUA, WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The snowpack has improved slightly during March, but it is still much below average. The snowpack is much better than it was last year, however. Most of the area will have much below average streamflows this year. Reservoir storage is normal for this time of year so those irrigators getting water from reservoirs should have adequate supplies this year. Irrigators pumping from streams will experience shortages this summer. Little Butte Creek and South Umpqua River will recede about two weeks early this year. Precipitation has been 92% of average for both the periods of March and the 1980 water year thus far.



## STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Applegate near Copper	103	80	April-Sept.		129
Clearwater above Trap Creek	54	76	April-Sept.		71
Fourmile Lake net Inflow	3.0	77	April-Sept.		3.9
Hyatt Reservoir net Inflow	3.1	63	April-July		4.9
Illinois River near Kerby	127	72	April-July		176
	132	72	April-Sept.		183
Little Butte, N.Fk. at Fish Lake nr. Lake Cr.	9.8	70	April-Sept.		14.0
Little Butte, S.Fk. near Lake Creek	21	68	April-July		31
Red Blanket Creek nr. Prospect	25	72	April-July		35
Rogue above Prospect	172	67	April-July		257
	215	68	April-Sept.		314
Rogue, South Fork near Prospect	42	68	April-July		62
	50	68	April-Sept.		74
Rogue at Raygold near Central Point	530	70	April-July		756
	640	70	April-Sept.		919
Rogue at Grants Pass	630	69	April-Sept.		908
Sucker Cr. blw. Little Grayback nr. Holland	44	75	April-July		58
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls	139	82	April-Sept.		170
Umpqua, So. near Tiller	100	55	April-July		183
So.Fk. Big Butte Cr. nr. Butte Falls	27	75	April-July		36

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	100	May 3	May 15
South Umpqua nr. Tiller	140	June 27	July 10
	90	July 15	July 30
	60	Aug. 4	Aug. 27

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Emigrant Lake	39.0	39.0	39.0	36.1
Fish Lake	8.0	5.4	5.5	6.1
Fourmile Lake	16.1	8.2	8.2	10.6
Howard Prairie	60.0	60.6	42.1	47.9
Hyatt Prairie	16.1	15.6	13.1	13.3
Lost Creek	315.0	280.9	340.1	--

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Applegate	3	135	71
Bear Creek	2	161	74
Butte Creek	4	209	52
Illinois River	3	233	63
North Umpqua	3	91	30
Rogue River	4	150	58

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## KLAMATH WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Snowpack on the Lost River and Sprague River watersheds is 130% and 100% of average respectively. The snowpack is much below average on the Upper Klamath (66% of normal) and on the Williamson River (34% of normal) watersheds. The streamflow forecasts for the Upper Klamath Lake and Williamson River are much below average. The streamflow in the remaining area will be above average except for the Sprague which will be below average. Precipitation for March has been poor, only 68% of normal, but for the 1980 water year it is running 109% of normal. Reservoir storage for the area is slightly below normal for this time of year. Irrigators who receive water from reservoirs should have adequate supplies this year while those diverting directly from the Williamson may have short supplies.

#### LEGEND





## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>c</sup>
Clear Lake Reservoir Inflow	50	120	April-July		42
	53	120	April-Sept.		44
Gerber Reservoir Inflow	22	113	April-July		19.5
	23	115	April-Sept.		20.0
Sprague near Chiloquin	178	84	April-July		212
	206	85	April-Sept.		242
Upper Klamath Lake net Inflow	307	70	April-July		438
	368	70	April-Sept.		526
Williamson below Sprague River	266	65	April-Sept.		409

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Clear Lake	440.2	221.3	177.2	277.7
Gerber	94.0	61.3	48.5	66.4
Upper Klamath Lake	584.0	459.4	450.1	467.7

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Lost River	4	150	134
Sprague River	3	168	100
Upper Klamath	6	159	66
Williamson River	3	124	34

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

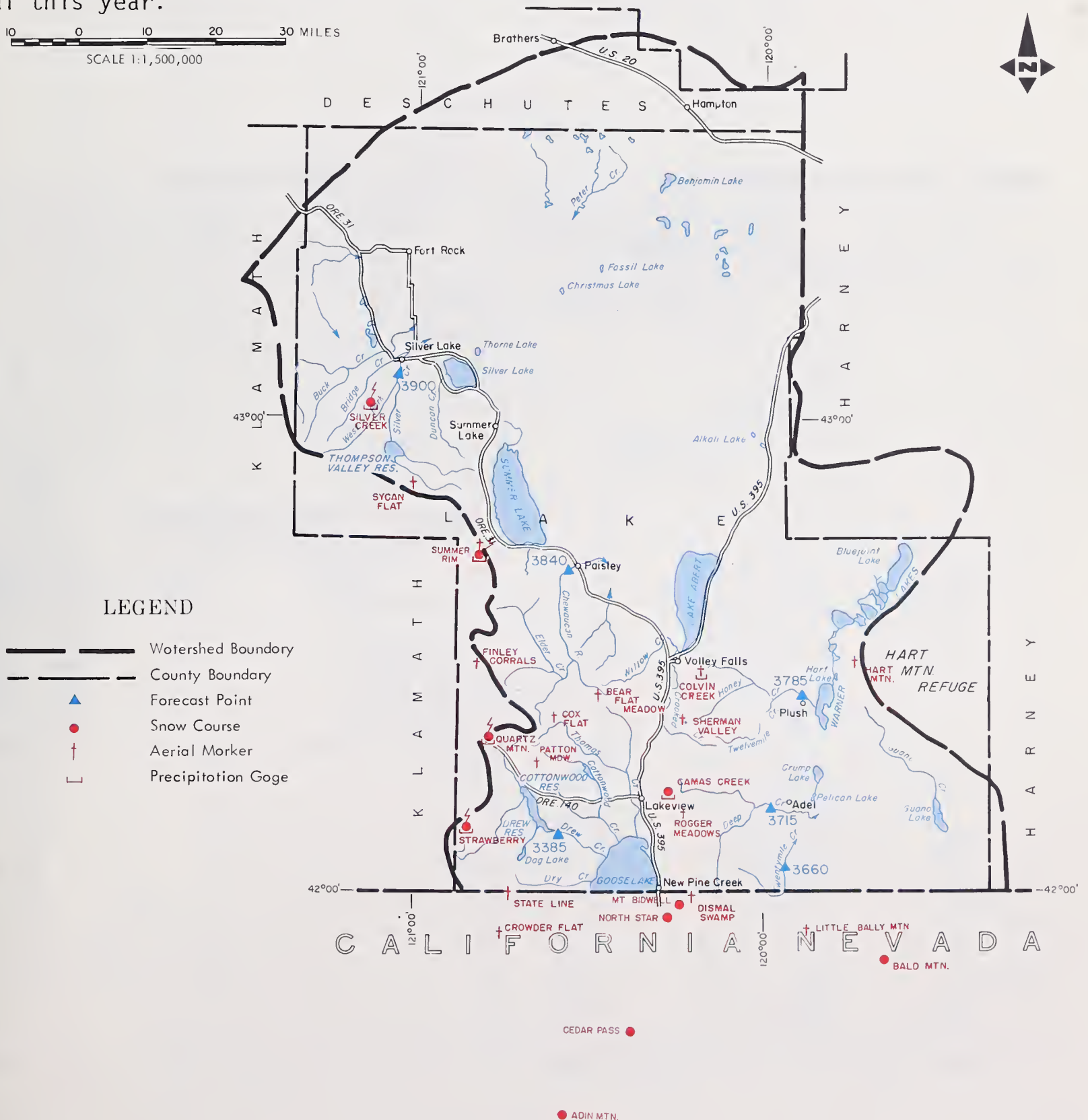
# WATER SUPPLY OUTLOOK

## LAKE COUNTY, GOOSE LAKE WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The snowpack for the area ranges from 100% of average on the Chewaucan River to 189% of average on Twentymile Creek (except for Silver Creek which virtually has no snow). Precipitation for March was only 87% of normal, but for the water year through March it is 122% of normal. The streamflow forecast is below average for Silver Creek (71% of average) and Bridge Creek (80% of average). Streamflow forecasts for the remaining area are very good, ranging from 100% on the Chewaucan River to 194% on Twentymile River. Reservoir storage is below average for this time of year. The flow on Honey Creek should recede about 3 weeks later than normal this year.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year      Average <sup>c</sup>
Chewaucan near Paisley	77	100	April-July	77
	81	100	April-Sept.	81
Cottonwood Creek nr. Lakeview	10.2	107	April-July	9.5
Deep above Adel	100	149	April-July	67
	101	146	April-Sept.	69
Drews Reservoir net Inflow	31	115	April-July	27
Honey Creek near Plush	25	141	April-July	17.7
	25	140	April-Sept.	17.9
Silver Creek near Silver Lake	10.0	71	April-July	14.1
Twentymile near Adel	35	193	April-July	18.1
	36	194	April-Sept.	18.6
Bridge Creek at Spahr Ranch nr. Silver Lake	2.7	80	April-July	3.4

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Honey Creek nr. Plush	100 50	June 6 June 22	May 15 May 30

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average <sup>c</sup>
Cottonwood	8.7	3.7	4.9	4.8
Drews	63.0	49.1	42.9	50.8
Thompson Valley	19.5	7.9	9.2	15.4

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Chewaucan River	3	168	100
Deep Creek	3	162	165
Drew Creek	3	196	104
Honey Creek	3	193	153
Silver Creek	3	0	0
Twentymile Creek	2	170	189

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



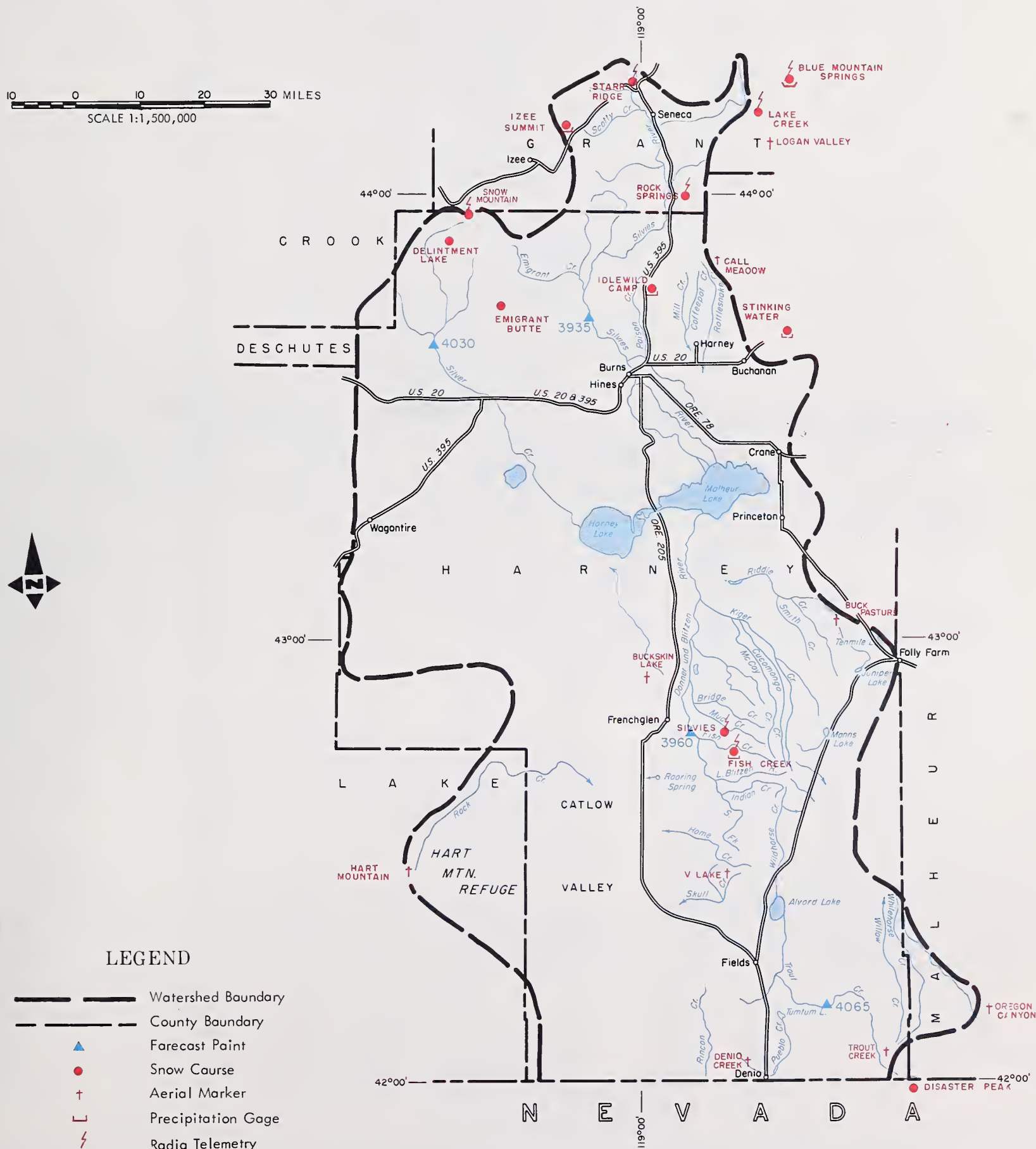
# WATER SUPPLY OUTLOOK

## HARNEY BASIN WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Snowpack on Silver Creek and the Silvies River watersheds is near normal while it is much above normal on the rest of the area. Streamflow forecasts range from 100% to 157% of average. Precipitation has been above average for March (111%). The Silvies River should recede within a day of the normal dates, while the Donner und Blitzen River should recede nine days later than normal.



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	FORECAST PERIOD	Last Year      Average <sup>c</sup>
Donner und Blitzen near Frenchglen	64	123	April-July	52
	69	121	April-Sept.	57
Silver near Riley	15.8	100	April-July	15.8
Silvies River near Burns	75	100	April-July	75
	77	100	April-Sept.	77
Trout Creek near Denio	13.8	157	April-Sept.	8.8

## FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Silvies nr. Burns	400	May 5	May 5
	200	May 20	May 21
	100	June 10	June 9
	50	June 24	June 23
Donner und Blitzen	200	June 23	June 15
	100	July 15	July 5

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average <sup>c</sup>
Donner und Blitzen R.	4	105	131
Silver Creek	3	86	99
Silvies River	4	79	100
Trout Creek	3	123	217

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1980

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
OWYHEE, MALHEUR WATERSHEDS					
Antelope Ridge (Ida.)	3/26	10	4.4	3.4	6.2
Battle Creek (Ida.) *	3/25	0	0.0	0.0	1.7
Bear Creek (Nev.)	4/1	78	23.9	19.2	21.4
Big Bend (Nev.)	3/26	32	10.1	9.5	8.2
Blue Mountain Springs	3/26	51	14.2	16.9	16.0
Blue Mtn. Spgs. Plw.(T)	3/31	--	20.1	20.2	--
Blue Mtn. Spgs. Plw.(S)	3/26	54	15.0	17.0	13.8 <sup>b</sup>
Blue Mtn. Spgs. Plw.(M)	3/26	--	20.2	21.6	12.2 <sup>b</sup>
Boulder Creek *	3/25	9	3.0	--	--
Buck Pasture *	3/25	TR	0.1	0.0	1.8
Buckskin, Lower (Nev.)	3/26	33	9.9	7.7	7.0
Buckskin, Upper (Nev.)	3/26	42	14.9	15.3	9.3 <sup>b</sup>
Bull Basin (Ida.) *	3/25	TR	0.1	0.0	0.4
Bully Creek *	3/25	TR	0.1	0.0	0.8
Call Meadows *	3/25	7	2.2	2.7	2.7
Columbia Basin (Nev.)	3/29	18	5.6	11.2	6.8 <sup>b</sup>
Disaster Peak (Nev.)		e		11.1	10.9
Eldorado Pass	3/26	0	0.0	0.0	1.4
Fawn Creek (Nev.) *	3/29	33	10.2	8.5	5.2 <sup>b</sup>
Fish Creek *	3/25	99	35.6	18.6	20.3 <sup>b</sup>
Fish Creek	3/31	92	33.6	28.8	26.1
Fish Creek Pillow(T)	3/31	--	36.8	--	--
Fish Creek Pillow(S)	N/R			28.0	--
Fish Creek Pillow(M)	3/31	--	35.1	--	25.9 <sup>b</sup>
Flag Prairie *	3/25	TR	0.1	8.7	2.6
Fox Creek (Nev.)	4/1	41	12.8	9.2	9.5 <sup>b</sup>
Fry Canyon (Nev.)	3/26	29	10.2	8.1	6.1
Gold Creek (Nev.)	3/26	16	5.9	6.3	4.9
Granite Peak (Nev.)		e		14.5	15.4 <sup>b</sup>
Hyde Pasture (Ida.) *	3/25	6	2.3	0.0	3.2
Jack Creek, Lower (Nev.)	3/26	17	5.8	5.1	2.3
Jack Creek, Upper (Nev.)	3/26	35	10.9	10.7	9.4
Jack Peak (Nev.)	3/26	79	26.9	24.1	26.0
Lake Creek R.S.	3/26	33	10.4	10.6	9.2
Lake Creek R.S. Plw.(T)	3/31	--	14.7	14.2	--
Lake Creek R.S. Plw.(S)	3/26	37	12.5	11.2	--
Lake Creek R.S. Plw.(M)	3/26	--	14.8	12.0	--
Laurel Draw (Nev.) *	3/26	32	9.6	9.2	7.1 <sup>b</sup>
Logan Valley *	3/25	6	1.9	14.1	5.9 <sup>b</sup>
Lookout Butte *	3/25	0	0.0	0.0	--
Louse Canyon *	3/25	32	10.6	11.0	3.4
Martin Creek (Nev.) *	3/26	45	11.4	6.9	8.5
Merritt Mountain (Nev.) *	3/29	29	9.3	6.4	5.8 <sup>b</sup>
Midas (Nev.) *	3/26	0	0.0	0.1	2.4 <sup>b</sup>
Mud Flat (Ida.)	3/26	16	8.0	6.0	4.9
Oregon Canyon *	3/25	27	8.9	8.7	3.8
Quinn Ridge (Nev.) *	3/25	0	0.0	0.0	0.9
Red Canyon (Ida.) *	3/25	29	11.0	9.5	5.0
Rock Spring	3/26	16	4.8	6.5	4.3
Rock Spring Plw.(T)	----				
Rock Spring Plw.(S)	3/26	18	5.0	4.6	--
Rock Spring Plw.(M)	3/26	--	2.8	2.6	--
Rodeo Flat (Nev.)	3/26	26	8.8	7.9	4.9
76 Creek (Nev.) *	4/1	48	15.4	12.3	11.5 <sup>b</sup>
Silver City (Ida.)	3/26	48	16.1	14.4	15.5
Silver City (Ida.) *	3/25	21	7.1	17.9	13.5 <sup>b</sup>
Silvies *	3/25	36	10.4	8.7	8.7 <sup>b</sup>
Silvies	3/31	57	17.5	14.6	12.9
Silvies Pillow (T)	----				
Silvies Pillow (S)	3/31	48	13.0	10.1	--
Silvies Pillow (M)	3/31	--	8.3	--	21.9 <sup>b</sup>
South Mountain #2 (Ida.)	3/31	54	20.4	15.8	13.0
South Mtn. #2 Plw.(T)	3/31	--	24.8	14.1	--
Stag Mountain (Nev.) *	3/29	30	10.2	10.9	4.8 <sup>b</sup>
Stinking Water	4/1	0	0.0	0.0	0.8 <sup>b</sup>
Succor Creek (Ida.) *	3/25	27	9.2	11.8	5.0
Taylor Canyon (Nev.)	3/26	11	3.7	7.3	2.7
Toe Jam (Nev.) *	3/29	36	11.9	14.4	8.3 <sup>b</sup>
Tremewan Ranch (Nev.) *	3/26	0	0.0	0.0	0.3
Trout Creek *	3/25	45	16.2	11.8	7.6
"V" Lake	3/25	36	10.4	14.4	6.5
Vaught Ranch (Ida.) *	3/25	0	0.0	0.0	1.7 <sup>b</sup>
War Eagle (Ida.) *	3/25	81	27.5	28.5	25.1 <sup>b</sup>

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. <sup>C</sup>
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
Aneroid Lake #2	3/27	97	31.8	23.2	34.0
Aneroid Lake #2 Plw.(S)	3/27	92	--	--	--
Aneroid Lake #2 Plw.(M)	3/27	--	33.1	--	--
Anthony Lake	3/27	81	26.4	24.8	27.9
Bald Mountain (OR) *	3/25	81	26.7	28.8	24.0
Beaver Reservoir (Rev.)	3/28	42	11.6	9.8	12.7
Beaver Res. Pillow (S)	3/28	35	9.0	8.3	--
Beaver Res. Pillow (M)	----				
Bigelow Camp Pillow (S)	3/27	25	6.4	--	--
Bigelow Camp Pillow (M)	3/27	--	3.0	--	--
Big Sheep *	3/25	91	30.0	21.6	25.2
Blue Mtn. Summit	3/25	22	7.7	9.5	8.0
Bourne	3/25	37	14.6	17.5	14.5
Bourne Pillow (T)	3/25	--	19.4	24.4	--
Bourne Pillow (S)	3/25	52	17.6	20.4	--
Bourne Pillow (M)	3/25	--	18.7	24.1	--
County Line	3/28	14	3.6	5.0	4.3
County Line Pillow (T)	----				
County Line Pillow (S)	3/28	8	1.6	1.4	--
County Line Pillow (M)	3/28	--	1.1	0.8	--
Dooley Mountain	3/26	29	9.0	6.0	7.9
Eilertson Meadows	3/25	31	12.2	12.1	11.6
Eilertson Mdws.Plw.(S)	3/25	31	11.1	11.7	--
Eilertson Mdws.Plw.(M)	----			10.8	--
Eldorado Pass	3/26	0	0.0	0.0	1.4
Gold Center	3/25	31	11.8	14.5	12.6
Gold Center Pillow (T)	----				
Gold Center Pillow (S)	----			12.4	--
Gold Center Pillow (M)	3/25	--	7.3	10.9	--
Goodrich Lake	3/25	95	37.7	--	36.8
Little Alps	3/27	51	13.0	13.3	14.8
Little Antone	3/27	11	3.5	5.8	5.4 <sup>b</sup>
Little Antone (Alt.)	3/27	17	5.0	9.5	--
Lucky Strike	3/28	35	9.8	15.9	12.7
Lucky Strike Pillow (T)	3/28	--	6.5	11.3	--
Lucky Strike Pillow (S)	3/28	19	4.5	9.9	--
Lucky Strike Pillow (M)	----			14.0	--
Meacham	3/28	18	4.2	7.3	9.9
Mirror Lake *	3/25	179	59.1	53.7	74.6
Moss Spring	3/25	68	22.4	28.2	24.8
Moss Spring Pillow (T)	----				
Moss Spring Pillow (S)	3/25	72	24.8	--	--
Moss Spring Pillow (M)	3/25	--	23.2	--	--
Mt. Howard Pillow (S)	3/24	64	18.5	26.6	--
Mt. Howard Pillow (M)	3/24	--	13.5	--	--
Schneider Meadow	3/25	73	29.4	30.4	30.4
Schneider Meadow Plw.(T)	----				
Schneider Meadow Plw.(S)	3/25	73	29.4	--	--
Schneider Meadow Plw.(M)	----			26.3	--
Schoolmarm	3/28	13	3.4	2.2	2.6
Standley *	3/25	98	32.3	34.3	33.5
Taylor Green	3/25	48	15.8	19.6	16.8
Taylor Green Pillow (T)	3/25	--	21.6	25.4	--
Taylor Green Pillow (S)	3/25	59	23.0	24.3	--
Taylor Green Pillow (M)	3/25	--	20.6	23.3	--
Tipton	3/25	21	7.8	9.5	9.9
Tipton Pillow (T)	3/25	--	7.5	--	--
Tipton Pillow (S)	3/25	34	10.3	13.6	14.3 <sup>b</sup>
Tipton Pillow (M)	3/25	--	6.9	--	--
Tollgate	3/28	66	22.7	30.5	26.7
TV Ridge	3/25	78	25.7	22.4	23.3 <sup>b</sup>
West Eagle Meadows *	3/25	72	23.8	27.9	--
Wolf Creek Pillow (T)	3/25	--	13.6	12.8	--
Wolf Creek Pillow (S)	3/25	55	16.3	20.8	--
Wolf Creek Pillow (M)	3/25	--	12.0	15.0	--
* Aerial					
N/R No Report					
TR Trace					
T = Telemetry Measurement					
S = Snow Tube Measurement					
M = Manometer Measurement					

\* Aerial

N/R No Report

TR Trace

T = Telemetry Measurement

S = Snow Tube Measurement

M = Manometer Measurement

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1980

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. <sup>c</sup>
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
Arbuckle Mountain	3/28	26	6.9	13.4	10.3
Arbuckle Mtn. Plw.(T)	----			22.1	--
Arbuckle Mtn. Plw.(S)	3/28	64	17.6	24.4	--
Arbuckle Mtn. Plw.(M)	3/28	--	25.0	23.6	24.2 <sup>b</sup>
Blue Mountain Camp	3/28	20	6.4	10.6	15.2
Bowman Springs Plw.(T)	3/28	--	13.1	12.5	--
Bowman Springs Plw.(S)	3/28	27	8.0	10.1	--
Bowman Springs Plw.(M)	3/28	--	12.9	13.5	--
Butte Creek Summit	N/R				
Emigrant Springs	3/28	11	2.7	1.3	3.9
Emigrant Springs Plw.(S)	3/28	8	2.2	0.0	--
Emigrant Springs Plw.(M)	3/28	--	2.8	--	--
High Ridge Pillow (T)	3/28	--	26.6	26.3	--
High Ridge Pillow (S)	3/28	74	25.6	34.7	32.3
High Ridge Pillow (M)	3/28	--	25.8	26.7	29.4 <sup>b</sup>
Lucky Strike	3/28	35	9.8	15.9	12.7
Lucky Strike Pillow(T)	3/28	--	6.5	11.3	--
Lucky Strike Pillow(S)	3/28	19	4.5	9.9	--
Lucky Strike Pillow(M)	----			14.0	--
Madison Butte Pillow(T)	----				
Madison Butte Pillow(S)	3/28	7	2.0	5.6	--
Madison Butte Pillow(M)	3/28	--	1.2	4.6	--
Meacham	3/28	18	4.2	7.3	9.9
Tollgate	3/28	66	22.7	30.5	26.7
UPPER JOHN DAY WATERSHEDS					
Anthony Lake	3/27	81	26.4	24.8	27.9
Arbuckle Mountain	3/28	26	6.9	13.4	10.3
Arbuckle Mountain Plw.(T)	----			22.1	--
Arbuckle Mountain Plw.(S)	3/28	64	17.6	24.4	--
Arbuckle Mountain Plw.(M)	3/28	--	25.0	23.6	24.2 <sup>b</sup>
Blue Mountain Springs	3/26	51	14.2	16.9	16.0
Blue Mtn. Spgs. Plw.(T)	3/31	--	20.1	20.2	--
Blue Mtn. Spgs. Plw.(S)	3/26	54	15.0	17.0	13.8 <sup>b</sup>
Blue Mtn. Spgs. Plw.(M)	3/26	--	20.2	21.6	12.2 <sup>b</sup>
Blue Mountain Summit	3/25	22	7.7	9.5	8.0
Butte Creek Summit	N/R				
Derr	3/28	24	7.9	7.6	8.9
Derr Pillow (T)	----				
Derr Pillow (S)	3/28	42	15.0	12.0	--
Derr Pillow (M)	3/28	--	18.7	14.4	--
Gold Center	3/25	31	11.8	14.5	12.6
Gold Center Plw.(T)	----				
Gold Center Plw.(S)	----			12.4	--
Gold Center Plw.(M)	3/25	--	7.3	10.9	--
Izee Summit	3/26	34	8.0	9.9	6.6
Lucky Strike	3/28	35	9.8	15.9	12.7
Lucky Strike Plw.(T)	3/28	--	6.5	11.3	--
Lucky Strike Plw.(S)	3/28	19	4.5	9.9	--
Lucky Strike Plw.(M)	----			14.0	--
Marks Creek	4/1	0	0.0	0.0	1.8
Ochoco Meadows	3/31	23	9.2	8.4	8.2
Ochoco Mdws. Plw.(T)	----				
Ochoco Mdws. Plw.(S)	3/31	30	11.8	10.6	--
Ochoco Mdws. Plw.(M)	3/31	--	10.3	8.9	--
Olive Lake *	3/25	64	24.0	28.1	21.0
Schoolmarm	3/28	13	3.4	2.2	2.6
Snow Mountain	3/28	39	10.0	14.3	12.1
Snow Mountain Plw.(T)	3/31	--	13.4	12.8	--
Snow Mountain Plw.(S)	3/28	44	9.8	13.3	11.0 <sup>b</sup>
Snow Mountain Plw.(M)	3/28	--	11.1	13.0	--
Starr Ridge	3/26	12	4.6	6.8	4.6
Starr Ridge Plw.(T)	----				
Starr Ridge Plw.(S)	3/26	12	5.0	6.0	--
Starr Ridge Plw.(M)	3/26	--	3.2	0.8	--
Tipton	3/25	21	7.8	9.5	9.9
Tipton Pillow (T)	3/25	--	7.5	--	--
Tipton Pillow (S)	3/25	34	10.3	13.6	14.3 <sup>b</sup>
Tipton Pillow (M)	3/25	--	6.9	--	--

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. <sup>c</sup>
UPPER DESCHUTES, CROOKED WATERSHEDS					
Bald Peter	3/28	82	28.6	24.8	--
Caldwell Ranch	3/27	3	1.2	3.2	8.5 <sup>b</sup>
Cascade Summit	3/25	42	13.1	17.2	30.1
Cascade Summit Plw.(S)	3/25	62	21.0	23.0	--
Cascade Summit Plw.(M)	3/25	--	17.0	--	--
Chemult Alternate	4/2	2	0.6	0.0	9.0
Chemult Alt. Plw.(S)	4/2	0	0.0	--	--
Chemult Alt. Plw.(M)	4/2	--	0.0	--	--
Derr	3/28	24	7.9	7.6	8.9
Derr Pillow (T)	----				
Derr Pillow (S)	3/28	42	15.0	12.0	--
Derr Pillow (M)	3/28	--	18.7	14.4	--
Hogg Pass	3/26	69	22.3	28.4	42.3
Hogg Pass Pillow(T)	3/26	--	25.4	22.3	--
Hogg Pass Pillow(S)	3/26	78	26.2	30.4	--
Hogg Pass Pillow(M)	3/26	--	26.2	24.7	--
Hungry Flat	3/31	TR	0.1	0.0	3.4
Irish-Taylor Pillow(T)	----			17.9	--
Irish-Taylor Pillow(S)	3/28	87	29.4	24.8	39.2
Irish-Taylor Pillow(M)	3/28	--	29.7	17.6	--
Lionshead *	4/2	45	14.8	8.4	--
Marks Creek	4/1	0	0.0	0.0	1.8
New Crescent Lake	3/26	12	3.5	5.2	13.5
New Crescent Lake Plw.(S)	3/26	10	2.4	5.4	--
New Crescent Lake Plw.(M)	3/26	--	0.3	--	--
New Dutchman Flat #2	3/31	115	46.8	35.1	52.0
Ochoco Meadows	3/31	23	9.2	8.4	8.2
Ochoco Meadows Plw.(T)	----				
Ochoco Meadows Plw.(S)	3/31	30	11.8	10.6	--
Ochoco Meadows Plw.(M)	3/31	--	10.3	8.9	--
Racing Creek	3/28	31	10.2	12.0	16.8 <sup>b</sup>
Snow Mountain	3/28	39	10.0	14.3	12.1
Snow Mountain Plw.(T)	3/31	--	13.4	12.8	--
Snow Mountain Plw.(S)	3/28	44	9.8	13.3	11.0 <sup>b</sup>
Snow Mountain Plw.(M)	3/28	--	11.1	13.0	--
Summit Lake Pillow(T)	----			19.6	--
Summit Lake Pillow(S)	3/26	88	28.6	26.4	39.9
Summit Lake Pillow(M)	3/26	--	28.8	20.2	--
Tamarack	3/26	4	0.8	4.3	3.5
Tangent	3/31	42	17.2	12.8	22.4
Three Creek Butte	3/31	7	2.0	3.4	8.6
Three Creek Meadow	3/31	22	6.6	11.3	17.8
Three Creek Mdw. Plw.(T)	----				
Three Creek Mdw. Plw.(S)	3/31	51	19.8	15.9	18.2 <sup>b</sup>
Three Creek Mdw. Plw.(M)	3/31	--	10.7	12.2	--
Waldo Lake	3/27	55	16.4	18.6	32.3
Whitewater Meadow *	4/2	0	0.0	0.0	--
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS					
Brooks Meadow	3/27	37	11.0	7.6	10.7
Clear Lake	3/26	19	6.0	5.9	10.2
Clear Lake Pillow (S)	3/26	34	11.3	14.1	--
Clear Lake Pillow (M)	----				
Clear Lake Expt.	3/26	34	11.3	14.1	16.3
Greenpoint	3/30	51	17.8	7.9	16.5
Greenpoint Pillow(T)	3/30	--	23.4	12.7	--
Greenpoint Pillow(S)	3/30	62	19.0	12.8	--
Greenpoint Pillow(M)	3/30	--	22.4	10.2	--
Mt. Hood Test Site (T)	----			32.8	67.2 <sup>b</sup>
Mt. Hood Test Site (S)	3/31	163	64.0	48.1	55.3 <sup>b</sup>
Mt. Hood Test Site (M)	3/31	--	66.2	36.5	--
Mud Ridge Pillow (T)	3/26	--	25.0	19.3	--
Mud Ridge Pillow (S)	3/26	62	19.9	16.5	31.9
Mud Ridge Pillow (M)	3/26	--	27.1	20.2	--
Red Hill	3/31	110	38.3	28.0	43.3
Red Hill Pillow (T)	3/31	--	48.6	40.6	--
Red Hill Pillow (S)	3/31	111	40.8	29.8	--
Red Hill Pillow (M)	3/31	--	47.8	40.2	--
Still Creek	3/26	58	20.2	17.2	25.4
Switchback	3/30	48	17.4	6.1	16.4
Tilly Jane	3/30	115	39.9	28.3	41.7

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1980

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
LOWER COLUMBIA WATERSHED					
Blazed Alder Pillow(T)	N/R				
Blazed Alder Pillow(S)	----				
Blazed Alder Pillow(M)	----				
Mt. Hood Test Site (T)	----			32.8	67.2 <sup>b</sup>
Mt. Hood Test Site (S)	3/31	163	64.0	48.1	55.3 <sup>b</sup>
Mt. Hood Test Site (M)	3/31	--	66.2	36.5	--
Mud Ridge Pillow(T)	3/26	--	25.0	19.3	--
Mud Ridge Pillow(S)	3/26	62	19.9	16.5	31.9
Mud Ridge Pillow(M)	3/26	--	27.1	20.2	--
No. Fork Res. (T)	3/31	--	14.0	13.0	--
No. Fork Res. (S)	----			6.8	--
No. Fork Res. (M)	----				
Still Creek	3/26	58	20.2	17.2	25.4
WILLAMETTE WATERSHEDS					
Cascade Summit	3/25	42	13.1	17.2	30.1
Cascade Summit Pillow(T)	----				
Cascade Summit Pillow(S)	3/25	62	21.0	23.0	--
Cascade Summit Pillow(M)	3/25	--	17.0	--	--
Champion	3/27	37	10.2	15.8	32.3
Clackamas Lake	3/28	21	7.6	3.7	12.6
Clackamas Lake Plw.(S)	3/28	32	13.0	7.8	--
Clackamas Lake Plw.(M)	----				
Clear Lake	3/26	19	6.0	5.9	10.2
Clear Lake Plw.(S)	3/26	34	11.3	14.1	--
Clear Lake Plw.(M)	----				
Clear Lake Expt.	3/26	34	11.3	14.1	16.3
Daly Lake Plw. (T)	----				
Daly Lake Plw. (S)	3/30	20	7.0	--	--
Daly Lake Plw. (M)	3/30	--	7.8	--	--
Dead Horse Grade	3/31	20	6.1	8.1	18.8
Golden Curry Creek	3/27	4	1.0	0.0	4.2
Hogg Pass	3/26	69	22.3	28.4	42.3
Hogg Pass Pillow(T)	3/26	--	25.4	22.3	--
Hogg Pass Pillow(S)	3/26	78	26.2	30.4	--
Hogg Pass Pillow(M)	3/26	--	26.2	24.7	--
Holland Meadows Plw.(S)	3/30	37	10.7	--	--
Holland Meadows Plw.(M)	3/30	--	7.8	--	--
Jump Off Joe Pillow (T)	3/30	--	5.6	1.3	--
Jump Off Joe Pillow (S)	3/30	18	6.2	2.8	--
Jump Off Joe Pillow (M)	3/30	--	5.2	0.4	--
Layng Creek	3/27	0	0.0	0.0	--
Little Meadows Plw.(T)	----				
Little Meadows Plw.(S)	3/30	31	10.0	--	--
Little Meadows Plw.(M)	3/30	--	8.6	--	--
Lost Creek Ranch	3/31	0	0.0	0.0	2.2
Lund Park	3/27	0	0.0	0.0	--
Marion Forks	3/26	9	2.8	6.2	13.0
Marion Forks Pillow(T)	----				
Marion Forks Pillow(S)	3/26	8	2.8	6.2	--
Marion Forks Pillow(M)	3/26	--	2.9	6.2	--
Marys Peak	4/2	18	7.1	2.6	12.8 <sup>b</sup>
McCredie Springs	3/25	0	0.0	0.0	--
McKenzie	3/31	81	28.9	28.8	45.9
McKenzie Pillow(S)	3/31	79	26.8	26.3	--
McKenzie Pillow(M)	3/31	--	24.9	--	--
Mt. Hood Test Site (T)	----			32.8	67.2 <sup>b</sup>
Mt. Hood Test Site (S)	3/31	163	64.0	48.1	55.3 <sup>b</sup>
Mt. Hood Test Site (M)	3/31	--	66.2	36.5	--
Peavine Ridge Pillow(T)	N/R			8.2	17.3
Peavine Ridge Pillow(S)	----				
Peavine Ridge Pillow(M)	----				
Railroad Overpass	3/25	0	0.0	0.0	0.6
Railroad Overpass Plw.(T)	----	----			
Railroad Overpass Plw.(S)	3/25	0	0.0	0.0	--
Railroad Overpass Plw.(M)	3/25	--	0.0	0.0	--
Roaring River Plw. (T)	----				
Roaring River Plw. (S)	3/30	53	17.4	--	--
Roaring River Plw. (M)	3/30	--	20.8	--	--
Saddle Mtn. Pillow(T)	3/31	--	6.2	--	11.5 <sup>b</sup>
Saddle Mtn. Pillow(S)	----				
Saddle Mtn. Pillow(M)	----				

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
WILLAMETTE WATERSHEDS (CONT.)					
Salt Creek Falls	3/25	17	4.8	6.0	16.4
Salt Creek Falls Plw.(S)	3/25	20	5.8	12.8	--
Salt Creek Falls Plw.(M)	3/25	--	5.1	--	--
Santiam Junction	3/26	19	5.9	10.3	22.6
Santiam Junction Plw.(T)	3/26	--	7.9	9.6	--
Santiam Junction Plw.(S)	3/26	22	6.6	10.9	--
Santiam Junction Plw.(M)	3/26	--	7.9	7.7	--
Seine Creek Pillow(T)	N/R			0.0	--
Seine Creek Pillow(S)	----				
Seine Creek Pillow(M)	----				
Still Creek	3/26	58	20.2	17.2	25.4
Summit Lake Pillow(T)	----			19.6	--
Summit Lake Pillow(S)	3/26	88	28.6	26.4	39.9
Summit Lake Pillow(M)	3/26	--	28.8	20.2	--
Timothy Lake	3/26	26	8.3	11.3	15.6 <sup>b</sup>
Waldo Lake	3/27	55	16.4	18.6	32.3
Weaver Creek	3/27	0	0.0	0.0	0.3
White Branch Slide	3/31	7	2.0	0.0	8.7
Whitewater Bridge	3/26	0	0.0	0.0	2.3
ROGUE, UMPQUA WATERSHEDS					
Althouse	3/26	16	5.7	0.0	8.9
Annie Spring	3/28	106	38.3	25.2	46.7
Beaver Dam Creek	3/31	18	6.5	0.1	13.9 <sup>b</sup>
Big Red Mountain	3/25	71	25.3	19.3	30.3
Big Red Mountain Plw.(T)	----				
Big Red Mountain Plw.(S)	2/25	64	20.0	16.8	--
Big Red Mountain Plw.(M)	2/25	--	22.6	17.4	--
Billie Creek Divide	3/26	43	14.6	8.0	21.8
Billie Cr. Div. Pillow(T)	3/27	--	15.8	9.3	--
Billie Cr. Div. Pillow(S)	3/27	40	15.0	8.6	--
Billie Cr. Div. Pillow(M)	3/27	--	14.6	8.4	--
Caliban	3/27	85	30.0	15.6	35.7 <sup>b</sup>
Caliban (Alternate)	3/27	86	30.4	18.4	--
Champion	3/27	37	10.2	15.8	32.3
Cold Springs Camp	3/31	75	26.9	17.6	35.6
Cold Springs Camp Plw.(T)	----			--	31.4 <sup>b</sup>
Cold Springs Camp Plw.(S)	3/31	53	18.8	14.8	--
Cold Springs Camp Plw.(M)	3/31	--	20.6	11.9	--
Deadwood Junction	3/31	8	2.4	0.1	9.0
Diamond-Crater Summit	3/25	65	21.7	16.4	31.9
Diamond Lake	3/25	33	10.8	9.2	21.3
Diamond Lake Pillow(S)	3/25	27	11.1	9.2	--
Diamond Lake Pillow(M)	----				
Fish Lake	3/27	18	6.0	5.6	12.9
Fish Lake Pillow(T)	----				
Fish Lake Pillow(S)	3/27	20	7.7	5.0	--
Fish Lake Pillow(M)	----				
Fourmile Lake	3/27	41	14.8	10.6	24.2
Fourmile Lake Pillow(T)	3/27	--	23.3	14.7	--
Fourmile Lake Pillow(S)	3/27	59	21.0	12.3	--
Fourmile Lake Pillow(M)	3/27	--	22.8	14.0	--
Grayback Peak	3/26	48	15.1	10.2	25.0
Howard Prairie Reservoir	3/31	8	2.1	0.1	7.6
Hyatt Prairie	3/31	6	1.6	0.0	7.0
Hyatt Prairie Pillow(T)	----				
Hyatt Prairie Pillow(S)	3/31	11	2.8	0.0	--
Hyatt Prairie Pillow(M)	3/31	--	2.4	0.5	--
King Mountain #1	3/27	12	4.2	0.0	5.6 <sup>b</sup>
King Mountain #2	3/27	8	2.8	0.0	6.6 <sup>b</sup>
King Mountain #2 Plw.(T)	----				
King Mountain #2 Plw.(S)	----				
King Mountain #2 Plw.(M)	----				
King Mountain #3	3/27	0	0.0	0.0	0.6 <sup>b</sup>
King Mountain #4	3/27	0	0.0	0.0	--
King Mountain #5	3/27	0	0.0	0.0	--
King Mountain #6	3/27	0	0.0	0.0	--
Little Red Mountain	3/24	49	16.7	12.9	24.6
Mt. Ashland Switchback	3/27	97	30.5	19.0	36.4 <sup>b</sup>
Mule Creek	3/27	6	3.2	0.0	7.9 <sup>b</sup>
North Umpqua	3/31	6	1.9	3.4	14.2
Page Mountain	3/26	8	3.0	0.0	3.7
Park Headquarters	3/27	149	53.6 <sup>a</sup>	38.2	62.7

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. C
ROGUE, UMPQUA WATERSHEDS (CONT.)					
Red Butte #1	3/28	30	8.4	2.1	16.7
Red Butte #2	3/28	14	5.8	0.0	9.8
Red Butte #3	3/28	0	0.0	0.0	5.0
Red Butte #4	3/28	0	0.0	0.0	2.5
Red Butte #5	3/28	0	0.0	0.0	0.1
Red Butte #6	3/28	0	0.0	0.0	--
Seven Mile	3/27	74	25.2	19.5	34.3 <sup>b</sup>
Seven Mile Pillow(T)	----				
Seven Mile Pillow(S)	3/27	63	22.4	15.4	--
Seven Mile Pillow(M)	3/27	--	24.5	8.6	--
Silver Burn	4/1	0	0.0	0.0	12.0
Siskiyou Summit	3/27	TR	0.1	0.0	4.8
Ski Bowl Road	3/27	73	25.2	14.8	31.0 <sup>b</sup>
South Fork Canal	3/31	0	0.0	0.0	0.9
Trap Creek	3/31	5	1.7	3.3	12.2
KLAMATH WATERSHEDS					
Annie Spring	3/28	106	38.3	25.2	46.7
Billie Creek Divide	3/26	43	14.6	8.0	21.8
Billie Cr. Div. Plw.(T)	3/27	--	15.8	9.3	--
Billie Cr. Div. Plw.(S)	3/27	40	15.0	8.6	--
Billie Cr. Div. Plw.(M)	3/27	--	14.6	8.4	--
Chemult Alternate	4/2	2	0.6	0.0	9.0
Chemult Alternate Plw.(S)	4/2	0	0.0	--	--
Chemult Alternate Plw.(M)	4/2	--	0.0	--	--
Chiloquin (PP&L)	N/R				
Cold Springs Camp	3/31	75	26.9	17.6	35.6
Cold Spgs. Camp Plw.(T)	----			--	31.4 <sup>b</sup>
Cold Spgs. Camp Plw.(S)	3/31	53	18.8	14.8	--
Cold Spgs. Camp Plw.(M)	3/31	--	20.6	11.9	--
Crazyman Flat *	3/25	34	11.6	8.8	9.9
Crowder Flat (Calif.) *	3/25	0	0.0	0.0	1.9
Crystal (PP&L)	3/30	0	0.0	0.0	6.8 <sup>b</sup>
Diamond-Crater Summit	3/25	65	21.7	16.4	31.9
Dog Hollow *	3/25	0	0.0	0.0	0.8
Finley Corrals *	3/25	48	16.8	14.4	16.1 <sup>b</sup>
Fort Klamath (PP&L)	3/30	0	0.0	0.0	1.8 <sup>b</sup>
Fourmile Lake	3/27	41	14.8	10.6	24.2
Fourmile Lake Pillow(T)	3/27	--	23.3	14.7	--
Fourmile Lake Pillow(S)	3/27	59	21.0	12.3	--
Fourmile Lake Pillow(M)	3/27	--	22.8	14.0	--
Gerber	4/1	0	0.0	0.0	0.9 <sup>b</sup>
Harriman (PP&L)	3/30	0	0.0	0.0	2.3 <sup>b</sup>
Howard Prairie	3/31	8	2.1	0.1	7.6
Hyatt Prairie Reservoir	3/31	6	1.6	0.0	7.0
Hyatt Prairie Res.Plw.(T)	----				
Hyatt Prairie Res.Plw.(S)	3/31	11	2.8	0.0	--
Hyatt Prairie Res.Plw.(M)	3/31	--	2.4	0.5	--
Kirk (PP&L)	3/30	0	0.0	--	3.1 <sup>b</sup>
Park Headquarters	3/27	149	53.6 <sup>a</sup>	38.2	62.7
Quartz Mountain	3/27	13	5.6	1.1	4.5
Quartz Mtn. Pillow (T)	----				
Quartz Mtn. Pillow (S)	3/27	18	6.8	4.3	--
Quartz Mtn. Pillow (M)	3/27	--	8.1	2.5	--
Seven Mile	3/27	74	25.2	19.5	34.3 <sup>b</sup>
Seven Mile Pillow(T)	----				
Seven Mile Pillow(S)	3/27	63	22.4	15.4	--
Seven Mile Pillow(M)	3/27	--	24.5	8.6	--
State Line (Calif.) *	3/25	16	5.6	2.4	6.9
Strawberry *	3/25	19	6.7	--	--
Strawberry	3/26	20	7.2	6.0	6.4
Strawberry Pillow(S)	3/26	17	6.2	4.0	--
Strawberry Pillow(M)	3/26	--	6.6	--	--
Summer Rim *	3/25	58	19.7	13.9	16.6 <sup>b</sup>
Summer Rim	3/31	54	18.4	13.4	16.6
Summer Rim Pillow(T)	3/31	--	19.5	12.0	--
Summer Rim Pillow(S)	3/31	56	18.5	13.3	17.2 <sup>b</sup>
Summer Rim Pillow(M)	3/31	--	21.2	10.2	17.5 <sup>b</sup>
Sycan Flat *	3/25	0	0.0	1.2	5.3 <sup>b</sup>
Taylor Butte	3/26	0	0.0	0.0	3.3
Taylor Butte Pillow(T)	----			0.0	--
Taylor Butte Pillow(S)	3/26	0	0.0	0.0	--
Taylor Butte Pillow(M)	3/26	--	0.0	0.0	--

## SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. <sup>c</sup>
LAKE COUNTY, GOOSE LAKE WATERSHEDS					
Adin Mountain (Calif.)	3/24	51	17.8	11.8	12.2
Bald Mountain (Nev.)	3/25	24	8.6	1.1	2.4
Bear Flat Meadow *	3/25	47	16.9	8.8	9.9
Camas Creek #1	3/27	25	9.9	7.3	8.5
Camas Creek #2	3/27	34	13.0	9.4	--
Cedar Pass (Calif.)	3/25	68	27.1	16.7	16.3
Colvin Creek *	3/25	23	8.7	0.0	4.4 <sup>b</sup>
Cox Flat *	3/25	3	1.2	2.4	6.4
Crowder Flat (Calif.) *	3/25	0	0.0	0.0	1.9
Dismal Swamp (Calif.) *	3/25	98	36.3	--	--
Dismal Swamp #2 Plw.(S)	3/28	97	36.0	--	--
Dismal Swamp #2 Plw.(M)	3/28	--	38.3	--	--
Finley Corrals *	3/25	48	16.8	14.4	16.1 <sup>b</sup>
Hart Mountain *	3/25	10	3.6	0.0	1.4
Little Bally Mtn.(Nev.) *	3/25	22	7.7	2.6	1.9
Mt. Bidwell (Calif.)	3/28	87	37.7	21.7	26.0 <sup>b</sup>
North Star (Calif.)	3/28	58	23.5	15.4	16.1 <sup>b</sup>
Patton Meadows *	3/25	66	23.8	14.1	17.8
Quartz Mountain	3/27	13	5.6	1.1	4.5
Quartz Mountain Plw.(T)	----				
Quartz Mountain Plw.(S)	3/27	18	6.8	4.3	--
Quartz Mountain Plw.(M)	3/27	--	8.1	2.5	--
Rogger Meadows *	3/25	55	20.9	11.8	--
Sherman Valley *	3/25	50	19.0	12.2	11.8
Silver Creek	3/26	0	0.0	0.0	1.1
Silver Creek Pillow(S)	3/28	20	6.5	7.0	--
Silver Creek Pillow(M)	3/28	--	6.9	--	--
State Line (Calif.) *	3/25	16	5.6	2.4	6.9
Strawberry *	3/25	19	6.7	--	--
Strawberry	3/26	20	7.2	6.0	6.4
Strawberry Pillow(S)	3/26	17	6.2	4.0	--
Strawberry Pillow(M)	3/26	--	6.6	--	--
Summer Rim *	3/25	58	19.7	13.9	16.6 <sup>b</sup>
Summer Rim	3/31	54	18.4	13.4	16.6
Summer Rim Pillow(T)	3/21	--	19.5	12.0	--
Summer Rim Pillow(S)	3/31	56	18.5	13.3	17.2 <sup>b</sup>
Summer Rim Pillow(M)	3/31	--	21.2	10.2	17.5 <sup>b</sup>
Sycan Flat *	3/25	0	0.0	1.2	5.3 <sup>b</sup>
HARNEY BASIN WATERSHEDS					
Blue Mountain Springs	3/26	51	14.2	16.9	16.0
Blue Mtn. Spgs. Plw.(T)	3/31	--	20.1	20.2	--
Blue Mtn. Spgs. Plw.(S)	3/26	54	15.0	17.0	13.8 <sup>b</sup>
Blue Mtn. Spgs. Plw.(M)	3/26	--	20.2	21.6	12.2 <sup>b</sup>
Buck Pasture *	3/25	TR	0.1	0.0	1.8
Buckskin Lake *	3/25	0	0.0	2.7	--
Call Meadows *	3/25	7	2.2	2.7	2.7
Delintment Lake	3/28	23	9.0	8.0	5.6
Denio Creek *	3/25	TR	0.1	0.0	0.2
Disaster Peak (Nev.)	<sup>e</sup>			11.1	10.9
Emigrant Butte	3/28	TR	0.1	0.0	1.6
Fish Creek *	3/25	99	35.6	18.6	20.3 <sup>b</sup>
Fish Creek	3/31	--	33.6	28.8	26.1
Fish Creek Pillow(T)	3/31	--	36.8	--	--
Fish Creek Pillow(S)	N/R			28.0	--
Fish Creek Pillow(M)	3/31	--	35.1	---	25.9 <sup>b</sup>
Hart Mountain *	3/25	10	3.6	0.0	1.4
Idlewild Camp Alt.	3/28	TR	0.1	0.0	1.4 <sup>b</sup>
Izee Summit	3/26	34	8.0	9.9	6.6
Lake Creek R.S.	3/26	33	10.4	10.6	9.2
Lake Creek R.S. Plw.(T)	3/31	--	14.7	14.2	--
Lake Creek R.S. Plw.(S)	3/26	37	12.5	11.2	--
Lake Creek R.S. Plw.(M)	3/26	--	14.8	12.0	--
Oregon Canyon *	3/25	27	8.9	8.7	3.8
Rock Spring	3/26	16	4.8	6.5	4.3
Rock Spring Pillow(T)	----				
Rock Spring Pillow(S)	3/26	18	5.0	4.6	--
Rock Spring Pillow(M)	3/26	--	2.8	2.6	--
Silvies *	3/25	36	10.4	8.7	8.7 <sup>b</sup>
Silvies	3/31	57	17.5	14.6	12.9
Silvies Pillow(T)	----				
Silvies Pillow(S)	3/31	48	13.0	10.1	--
Silvies Pillow(M)	3/31	--	8.3	--	21.9 <sup>b</sup>
Snow Mountain	3/28	39	10.0	14.3	12.1
Snow Mountain Plw.(T)	3/31	--	13.4	12.8	--
Snow Mountain Plw.(S)	3/28	44	9.8	13.3	11.0 <sup>b</sup>
Snow Mountain Plw.(M)	3/28	--	11.1	13.0	--
Starr Ridge	3/26	12	4.6	6.8	4.6
Starr Ridge Pillow(T)	----				
Starr Ridge Pillow(S)	3/26	12	5.0	6.0	--
Starr Ridge Pillow(M)	3/26	--	3.2	0.8	--
Stinking Water	4/1	0	0.0	0.0	0.8 <sup>b</sup>
Trout Creek	3/25	45	16.2	11.8	7.6
"V" Lake	3/25	36	10.4	14.4	6.5

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 2

APRIL 1, 1980

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average <sup>c</sup>
Aneroid Lake #2 (Wallowa County)	7300	From 2/27 To 3/27	2.28"		
Arbuckle Mountain (Morrow County)	5400	From 2/27 To 3/28	5.25"		
Beaver Reservoir (Union County)	5150	From 2/27 To 3/28	4.20"		
Bigelow Camp (Josephine County)	5120	From 2/26 To 3/27	9.60"		
Big Red Mountain (Jackson County)	6250	From 2/27 To 3/25	6.12"		
Billie Creek Divide (Jackson County)	5310	From 2/26 To 3/27	3.60"		
Bowman Springs (Union County)	4580	From 2/27 To 3/28	4.38"		
Cascade Summit (Lane County)	4880	From 2/25 To 3/25	8.64"		
Clackamas Lake (Clackamas County)	3400	From 9/5 To 3/28	35.40"		
Clear Lake (Wasco County)	3500	From 2/28 To 3/26	4.80"		
Cold Springs (Klamath County)	6100	From 2/28 To 3/31	7.20"		
County Line (Umatilla County)	4800	From 2/27 To 3/28	3.84"		
Daly Lake (Linn County)	3600	From 2/29 To 3/30	6.24"		
Derr (Wheeler County)	5670	From 2/28 To 3/28	3.60"		
Diamond Lake (Douglas County)	4600	From 2/25 To 3/25	6.72"		
Eilertson Meadow (Baker County)	5400	From 2/26 To 3/25	1.92"		
Fish Creek (Harney County)	7900	From 2/29 To 3/31	5.88"		
Fish Lake (Jackson County)	4665	From 2/26 To 3/27	6.36"		
Fourmile Lake (Klamath County)	6000	From 2/26 To 3/27	5.88"		
Gold Center (Grant County)	5340	From 2/26 To 3/25	7.34		
Greenpoint (Hood River County)	3200	From 2/29 To 3/30	9.60"		
High Ridge (Umatilla County)	4150	From 2/28 To 3/28	6.84"		
Hogg Pass (Jefferson County)	4755	From 2/26 To 3/26	9.12"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 2

APRIL 1, 1980

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average <sup>c</sup>
Holland Meadows (Lane County)	4900	From 2/25 To 3/30	10.56"		
Hyatt Prairie (Jackson County)	4900	From 2/29 To 4/1	4.32"		
Irish-Taylor (Deschutes County)	5500	From 2/28 To 3/28	7.68"		
Jump Off Joe (Linn County)	3400	From 2/26 To 3/30	10.44"		
Lake Creek (Grant County)	5120	From 2/27 To 3/31	2.52"		
Little Meadows (Linn County)	4000	From 2/29 To 3/30	11.40"		
Lucky Strike (Umatilla County)	5050	From 2/27 To 3/28	4.62"		
Madison Butte (Morrow County)	5250	From 2/27 To 3/28	3.00"		
Marion Forks (Linn County)	2730	From 2/26 To 3/26	8.64"		
McKenzie (Lane County)	5000	From 2/29 To 3/31	12.00"		
Moss Springs (Union County)	5850	From 2/26 To 3/25	7.56"		
Mt. Howard (Wallowa County)	7910	From 2/25 To 3/25	6.72"		
Mud Ridge (Clackamas County)	3800	From 2/28 To 3/26	6.60"		
New Crescent Lake (Klamath County)	4800	From 2/27 To 3/26	2.64"		
Ochoco Meadows (Crook County)	5200	From 2/29 To 3/31	2.40"		
Quartz Mountain (Lake County)	6300	From 2/27 To 3/27	1.68"		
Railroad Overpass (Lane County)	2750	From 2/25 To 3/25	6.00"		
Red Hill (Hood River County)	4400	From 2/28 To 3/31	20.16"		
Roaring River (Lane County)	4900	From 2/29 To 3/30	8.52"		
Rock Springs (Grant County)	5100	From 2/27 To 3/26	1.56"		
Salt Creek Falls (Lane County)	4000	From 2/25 To 3/25	8.16"		
Santiam Junction (Lane County)	3750	From 2/26 To 3/26	7.68"		
Schneider Meadows (Baker County)	5400	From 2/25 To 3/25	9.84"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 2

APRIL 1, 1980

## PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average <sup>c</sup>
Seven Mile (Klamath County)	5725	From 2/27 To 3/27	8.40"		
Silver Creek (Lake County)	5720	From 2/29 To 3/28	4.56"		
Starr Ridge (Grant County)	5156	From 2/28 To 3/26	1.92"		
Strawberry (Lake County)	5760	From 2/28 To 3/26	1.08"		
Summit Lake (Klamath County)	5600	From 2/27 To 3/26	8.52"		
Taylor Butte (Klamath County)	5040	From 2/26 To 3/26	1.80"		
Taylor Green (Baker County)	5740	From 2/26 To 3/25	4.56"		
Three Creek Meadows (Deschutes County)	5650	From 2/26 To 3/31	5.04"		
Tipton (Baker County)	5100	From 2/26 To 3/25	2.28"		
Wolf Creek (Union County)	5700	From 2/26 To 3/25	1.56"		
Dismal Swamp (California)	7200	From 10/24 To 3/28	42.40"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.











# The Following Organizations Cooperate in the Oregon Snow Survey Work

## STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon Department Of Water Resources
- Soil and Water Conservation Districts of Oregon

## COUNTY

- Douglas County Water Resources Survey

## FEDERAL

- Department of Agriculture
  - Cooperative Extension Service
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - NOAA, National Weather Service
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Land Management
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
- Department of National Defense
  - Corps of Army Engineers

## PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific National

## MUNICIPALITIES

- City of Baker
- City of La Grande
- City of Portland
- City of The Dalles
- City of Walla Walla

## IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale - Oregon Irrigation District
- Warm Springs Irrigation District

## PRIVATE ORGANIZATIONS

- The Crag Rats, Hood River, Oregon



UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
1220 S.W. THIRD AVE.  
PORTLAND, OREGON 97204

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

Return this entire sheet to above address, if you do NOT wish to receive this material ☐, or if change of address is needed ☐ (indicate changes in address below, including ZIP code).



POSTAGE AND FEES PAID  
U. S. DEPARTMENT OF  
AGRICULTURE  
AGR-101

**FIRST CLASS MAIL**

**FEDERAL - STATE - PRIVATE  
COOPERATIVE SNOW SURVEYS**

Furnishes the basic data  
necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

*"The Conservation of Water begins  
with the Snow Survey"*

USDA NATIONAL AGRICULTURAL LIBRARY  
CURRENT SERIAL RECORD  
BELTSVILLE, MARYLAND 20705